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Open File Report 99-329

plate 1

EXPLANATION

Surficial Deposits

Qa/Qal — Alluvial Deposits (Quaternary). Small streams and younger deposits (Qa), and older alluvial fans at range front (Qal).

Qc — Colluvial Deposits (Quaternary). Mainly composed of scree and soil below Eureka Quartzite on higher slopes and as deposits along range front.

Qct — Colluvial Talus Deposits (Quaternary). Mainly composed of angular boulders and cobbles of Eureka Quartzite in high valleys.

Igneous Rocks

Tal — Latite Dikes (Tertiary). Quartz poor, altered tan to buff feldspar lath-bearing, hypabyssal dikes.

Tgd — Quartz-feldspar-biotite Latite Dikes (Tertiary). Altered tan to buff hypabyssal dikes.

Kgr\ TKg — Granite (Cretaceous?). Richmond Granite stock(Kgr) and dike (TKg).

dl — Diorite Dikes (Mesozoic?). Hard, 0.5-m-thick black dikes.

Paleozoic Sedimentary Rocks

Dl — Limestone (Devonian?), fine-grained thin- to thick-bedded, locally altered to marble. From Evans (1980)

Srm — Roberts Mountains Formation (Silurian). fine-grained light to dark gray laminated silty dolomitic limestone containing interlayers of thin-bedded bioclastic limestone and white to dark-gray laminated marble and skarn .

Ls — Limestone (Paleozoic). Assigned to the Ordovician Pogonip Group by Evans (1974a,b, 1980), but may also correlate with Devonian limestone in sec. 35 T.35N, R.50E, and sec. 3 T.34N, R50E.

SOh — Hanson Creek Formation (Ordovician and Silurian). Black to dark gray, thick-bedded and massive, fine-grained dolomite of Evans (1974a,b, 1980). Units in north part of sec. 3 T.34N, R. 50E are interpreted due to fault offset and differ from Evans (1974, 1980).

Oe — Eureka Quartzite (Ordovician). White to tan, thin- to thick-bedded to massive quartzite of Evans (1974a, b, 1980).

Op — Pogonip Group (Ordovician). Thin to thick-bedded gray and white dolomite of Evans (1974). Also may locally contain Cambrian Hamburg Dolomite (Evans, 1980).

Contact Metamorphism and Alteration

Bleaching and decarbonatization (decalcification). Local calcite veins, jasperoid and iron-staining.

CS — Calc-silicate Rocks. Mild contact metamorphism and metasomatism. Marble, bleaching.

SK — Skarn. Intense contact metamorphism and metasomatism. Green to white recrystallized rocks. Pyroxene, grossularite, biotite, hornblende muscovite, talc, idocrase, tremolite, scapolite, magnetite, pyrite.

Fe — Iron-staining. Tan to red limonite, geothite, hematite.

J (Jasp.) — Jasperoid and jasperoid breccia. Orange, tan and maroon.

B — Gossan and skarn. Oxidized sulfides with maroon frothy boxworks. Local magnetite.

Contact

Outcrop

Strike and dip of bedding

Thrust Fault (Note: The trace of the Richmond Mountain thrust is projected through Colluvial Deposits Qc; it predates and does not cut these deposits)

Fault (down-thrown block noted with dot)

Breccia

Prospect pit

1758 — Geochemical sample (rock)

REFERENCES

Evans, J.G., 1974a, Geologic map of the Rodeo Creek NE quadrangle Eureka County, Nevada: U.S. Geological Survey Quadrangle Map GQ-1116, scale 1:24,000.

--------1974b, Geologic Map of the Welches Canyon quadrangle, Eureka County, Nevada: U.S. Quadrangle Map GQ-1117, scale 1:24,000.

--------1980, Geology of the Rodeo Creek NE and Welches Canyon Quadrangles, Eureka County, Nevada: U.S. Geological Survey Bulletin 1473, 81 p., 2 plates, scale1:24,000.

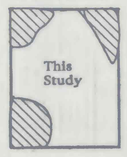
Scale
1:6,000
1 in = 500 ft

0 500 1,000 1,500 2,000 2,500

~300 m

Contour interval: 5 ft

Sources of Geologic Data
(Shaded areas from Evans, 1980)



GEOLOGIC MAP OF THE RICHMOND MOUNTAIN AREA, LYNN WINDOW, EUREKA COUNTY, NEVADA

by

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1999